



LONGBOAT HARBOUR TOWERS CONDOMINIUM, INC.

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Hurricane Roll Shutter Specifications

I. MANUFACTURER QUALIFICATIONS

All manufacturers to be considered acceptable to the Association shall have a minimum of five years experience in the manufacture and installation of shutter assemblies within Florida coastal counties governed by the Standard Building Code or the South Florida Building Code. The manufacturer shall not subcontract installation of shutter assemblies to individuals or companies not under employ to manufacturer without prior written approval of Association.

All manufacturers shall warrant shutter assemblies and their installation for a minimum labor 1year, motors 2 years, parts 5 years, full warranty from date of installation.

II. ENGINEERING REQUIREMENTS

All shutter components, assemblies and installation layout shall be described on shop drawings provided to Association prior to approval. All components, assemblies and fastening requirements shall be designed to **resist minimum wind velocity of 140 mph at the elevation of installation in accordance with design requirements set forth within Chapter 12 of the Standard Building Code currently adopted by Manatee County.** Engineering certification bearing the seal of Florida shall be provided with design data.

Manufacturer shall provide Association with written acknowledgment of manufacturer's knowledge of condominium's exterior wall or balcony structure and that same factored into fastening design by manufacturer's Engineer.

Manufacturer's provided universal shop drawings covering all considered applications shall have precise applications under consideration clearly designated.

III. MATERIALS

Major Components:

1. Shutter housing in all locations wherein shutter assemblies are installed flush to building exterior walls facing out, shutter housing shall be four-sided, all aluminum, possessing a minimum electrostatic finish of building standard, **herein designated ivory** or as approved by the board.
2. Shutter track structure: Shutter tracks, purlins, or other exposed components of shutter assembly shall be aluminum with minimum electrostatic paint finish to match reel housing enclosure and building standard. Mulls must be reinforced the entire length with pressure treated lumber.

Storm bars must not be hollow in construction, but internally reinforced for its full length. Storm bars shall be installed a minimum of ¾ inches deep in both mounting surfaces.

3. All shutter assemblies shall be provided with manual override crank system to permit operation in the event of power failure.
4. Shutter Slats: **All slats shall be of aluminum construction.**
5. Fasteners: All fasteners utilized in the installation of shutter assemblies shall be stainless tapcon screws. All fasteners shall be specified by the Design Engineer for size, spacing or frequency. All anchors shall be of expansion or epoxy fastening design; no pin or otherwise hammer driven fastener shall be permitted.
6. Electrical: **Shutters installed in all locations shall incorporate electrical motor operators, switch activators shall be recess mounted on interior wall surfaces for all shutter installations.**

All electrical devices within shutter assembly shall be U.L. approved and fuse or breaker protected. All electrical wiring shall be copper and all switch devices, U.L. and N.E.C. approved.

IV. INSTALLATION

1. **All balcony exposures shall have shutter shroud oriented to exterior of balcony edge. Shutters shall be installed at building wall.**
2. Manufacturer shall obtain a building permit, if required, covering physical shutter installation and electrical wiring from local building Department. Prior to installation, manufacturer shall provide Association with a copy of permit.
3. Insurance Requirements: Prior to installation, manufacturer shall provide to Association proof of public liability insurance including completed operations, workman's compensation, automobile liability, in such amounts as required by Association.
4. Rigging: Manufacturer is required to rig a swing stage or other scaffolding to effect installation on north, west and south walls. Manufacturer shall consult with property manager prior to anchoring swing stage restraints to any portion of building structure. Any and all damage to building finishes, roof membrane, flashings or any other roof-mounted devices shall be repaired by a contractor selected by Association to preserve warranties, and must be reimbursed to Association within five working days of receipt by manufacturer.
5. The Association shall advise manufacturer of warranties which exist on exterior waterproofing systems subject to penetration by fasteners for anchorage of shutter assemblies. Prior to installation, the Association shall be given sufficient time to consult with representatives of warranted systems so that they may be advised of any impending need to penetrate their warranted surface. In order that all warranties be preserved, coordination with the Association's contractors shall be undertaken by shutter manufacturer such that repairs and/or protection of membrane penetrations may be affected by Association contractors in a timely manner

subsequent to shutter installation. All costs to the association shall be borne by unit owner contracting for shutter installation.

It is the intent of these requirements that all warranty rights for waterproofing membranes not be voided by shutter installation.

Notwithstanding the proceeding, in the absence of the Association directing other parties to perform waterproofing of penetrations of shutter fastening points, the manufacturer shall apply a urethane sealant bedding at fastener locations, manual operator collars, and electrical circuitry penetrating building exteriors and provide for installations on flush exterior walls a tooled covered bead urethane sealant across head and sides of shutter housing. Side tracks mounted to building surface shall be additionally bedded in sealant. Urethane sealant shall be Sonneborn NP-1 or approved equal. (Sika Flex 1-A)

6. Electrical: All electrical wiring of wiring of operators and switches shall be provided by a licensed electrician in accordance with all requirements of the National Electrical Code. Notwithstanding these requirements, all circuitry shall be fed to building interior and existing circuitry by means of approved flex conduiting. Shutter circuitry tied to interior convenience receptacle circuitry shall be calculated by installing electrician such that combined amperage draw is consistent with circuit capacity and in accordance with the N.E.C.

In the event of damage, owners will be required to have shutters, painted, repaired, replaced or removed.

I will indemnify and hold harmless the Condominium Association from any and all legal damages, regardless of actual negligence, occurring from or growing out of the installation, maintenance, repair or removal of the shutter system and any of its components. I will assume complete financial responsibility for all damage to any common element caused by the installation, or the removal of the installation. If the Association deems it necessary for the maintenance or repair of said common element that the shutters be removed, said removal and re-installation shall be at my expense.

I have read and agree to the above specifications.

Date: _____

Unit#: _____

Owner: _____

Installer: _____

Note: We have sent you three copies of this memorandum. If you are planning to install shutters, you must first sign and return one copy to the Association, the installer must sign and return, keeping the third copy for your file.